

Sub  
135-9+ microlens.

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REMARKS

In the aforementioned Office Action, the Examiner has rejected claim 1 under 35 U.S.C. §112 for being indefinite. The Examiner has also rejected claims 1-5 under 35 U.S.C. §102(b) as being anticipated by the Clark reference.

In response, independent claims 1 and 5 have been amended to more clearly describe the present invention and to recite a microlens that is attached to the back side of a substrate. New claim 6 has been added. Support for the new claim and for the claim amendments is found in the specification on Page 3, Lines 9-15 and in Figs. 1 and 2. Claims 1-6 remain pending.

Rejections Under 35 U.S.C. §112 (Second Paragraph)

With respect to the rejection of Claim 1 for being indefinite, Claim 1 has been amended to establish antecedent basis for the "focal plane array" language cited by the Examiner, and to more clearly describe the present invention. Applicant believes that amended Claim 1 now has proper antecedent basis, which further obviate the indefiniteness issue with respect to this claim.

Rejections Under 35 U.S.C. §102(b)

Regarding the rejection of the claims as being anticipated by the Clark reference, independent Claims 1 and 5 now recite a microlens that is attached to the backside of a substrate. Conversely, the corresponding structure in Clark is merely shown and disclosed and depicted as as a lens which focuses incident radiation onto a focal plane. Accordingly, the Clark reference does not meet the element-by-element requirements of Sec. 102(b).

Applicant has made a bona fide effort to remove informalities from the specification and to properly amend the claims. As such, it is believed the present application is in a condition for allowance. Accordingly, a Notice to that effect is most respectfully requested.

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DEC 19 2002  
TECHNOLOGY CENTER 2300

Dated: December 10, 2002.

Respectfully submitted,



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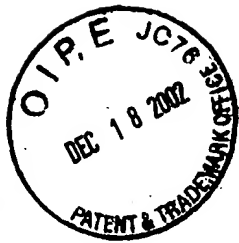


Exhibit A  
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Thomas M. Colandene )  
Serial No.: 09/888,509 ) Examiner J. Martinez  
Filed: June 26, 2001 ) Art Unit 2873  
Title: OFF-FOCAL PLANE MICRO-OPTICS )

RULE 111 AMENDMENT

MARKED-UP VERSION OF REWRITTEN CLAIMS 1 AND 5

PER 37 C.F.R. SEC. 1.121(c)

1. (Amended) An apparatus for providing a micro-optic function [micro-optics in a substrate located approximate to the focal plane array] within an optical system comprising:  
a focal plane array (FPA) having a detector surface, wherein input radiation from a viewed scene is received by the optical system; and,  
a substrate with a front side and a [and] back side, said [backside] back side further including at least one [a] microlens attached thereto, said substrate [is] being positioned approximate to the focal plane within said optical system, [whereby there is created a micro-optic function at the detector focal plane] wherein said microlens re-focuses said radiation and re-directs said radiation onto said detector surface.
4. (Amended) A micro-optic technique for a substrate within an optical system having a focal plane array (FPA) detector surface, comprising the steps of:  
receiving [in put] incident radiation from a viewed scene through an optical assembly [onto a focal plane of an optical system];  
providing a substrate having a front side and a back side on the optical axis in

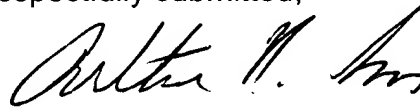
proximity to the focal plane within said optical assembly;

[providing] attaching at least one [a] micro-optic on the substrate to said back side;  
and,

re-focusing said radiation onto said detector surface with said micro-optic, after said radiation has passed through said substrate, to establish [, whereby there is created] a micro-optic effect from the substrate at said FPA detector surface.

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